CLAIMS:

1. Method of determining a first segmentation result of an object of interest in a first image of time-series images, the time-series images including the first image and a second image; the method comprising the step of: adapting an initial mesh to the object in the first image to determine the first segmentation result; wherein the adaptation of the initial mesh to the object of interest is performed on the basis of an energy optimisation using the initial mesh and a shape model of the first image; wherein the initial mesh corresponds to a second segmentation result of the object of interest in the second image; and wherein the second image precedes the first image in the time-series images.

2. The method of claim 1, wherein the energy optimisation further comprises the steps of: determining an internal energy corresponding to a first distance between the first segmentation result and the shape model; determining an external energy corresponding to a second distance between the object of interest and the first segmentation result; and minimizing the external and internal energies.

3. The method of claim 1, wherein the shape model is a time-dependent, three dimensional surface mesh determined from a training model.

4. The method of claim 1, wherein the object of interest is at least one of moving and deforming.

5. The method of claim 1, wherein the second image immediately precedes the first image in the time-series images.

6. The method of claim 1, wherein the method is a method for the

automated segmentation in cardiac MRI.

7. Image processing device, comprising: a memory for storing a first and a second image of time-series images; and an image processor for adapting an initial mesh to an object of interest in the first image to determine a first segmentation result; wherein the adaptation of the initial mesh to the object of interest is performed on the basis of an energy optimisation using the initial mesh and a shape model of the first image; wherein the initial mesh corresponds to a second segmentation result of the object of interest in the second image; and wherein the second image precedes the first image in the time-series images.

8. Computer program for an image processing device for determining a first segmentation result an object of interest in a first image of time-series images, the time-series images including the first image and a second image, wherein a processor of the image processing device executes the following step when the computer program is executed on the processor: adapting an initial mesh to the object in the first image to determine the first segmentation result; wherein the adaptation of the initial mesh to the object of interest is performed on the basis of an energy optimisation using the initial mesh and a shape model of the first image; wherein the initial mesh corresponds to a second segmentation result of the object of interest in the second image; and wherein the second image precedes the first image in the time-series images.